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5 <110> Ajinomoto Co., Inc.

10 <120> A method for improving the thermostability of a
protein, a protein having improved thermostability and
a nucleic acid sequence encoding the protein

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20 <150> JP 2000-201920

<151> 2000-07-04

25 <150> JP 2001-164332

<151> 2001-05-31

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<170> PatentIn Ver. 2.1

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BIOLOGICAL SEQUENCES

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Ile Val Ser Lys Ser Lys Arg Ile Leu Ala Lys Ile Asn Glu Leu Tyr

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tct ttg cct atc gaa tat att gaa gta gaa gct ggt gat cgt gca ttg 144
Ser Leu Pro Ile Glu Tyr Ile Glu Val Glu Ala Gly Asp Arg Ala Leu

25 35 40 45

gca aga tat ggt gaa gca ttg cca aaa gat agc tta aaa atc att gat 192
Ala Arg Tyr Gly Glu Ala Leu Pro Lys Asp Ser Leu Lys Ile Ile Asp

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Lys Ala Asp Ile Ile Leu Lys Gly Pro Val Gly Glu Ser Ala Ala Asp
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Val Val Val Lys Leu Arg Gln Ile Tyr Asp Met Tyr Ala Asn Ile Arg
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cca gca aag tct atc ccg gga ata gat act aaa tat ggt aat gtt gat 336
Pro Ala Lys Ser Ile Pro Gly Ile Asp Thr Lys Tyr Gly Asn Val Asp
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Ile Leu Ile Val Arg Glu Asn Thr Glu Asp Leu Tyr Lys Gly Phe Glu
115 120 125

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His Ile Val Ser Asp Gly Val Ala Val Gly Met Lys Ile Ile Thr Arg
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Arg Arg Lys Lys Val Thr Cys Val His Lys Ala Asn Val Met Arg Ile
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gta gaa tat tca gaa atg tat gta gac gca gca gcg gct aat tta gta 624
Val Glu Tyr Ser Glu Met Tyr Val Asp Ala Ala Ala Asn Leu Val

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Arg Asn Pro Gln Met Phe Asp Val Ile Val Thr Glu Asn Val Tyr Gly

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Asp Ile Leu Ser Asp Glu Ala Ser Gln Ile Ala Gly Ser Leu Gly Ile

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Ala Pro Ser Ala Asn Ile Gly Asp Lys Lys Ala Leu Phe Glu Pro Val

245 250 255

cac ggt gca gcg ttt gac att gct gga aag aat ata ggt aat ccc act 816
20 His Gly Ala Ala Phe Asp Ile Ala Gly Lys Asn Ile Gly Asn Pro Thr

260 265 270

gca ttt tta ctt tct gta agt atg atg tat gaa aga atg tat gag cta 864
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25 275 280 285

tct aat gac gat aga tat ata aaa gct tca aga gct tta gaa aac gct 912
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290 295 300

ata tac tta gtc tac aaa gag aga aaa gcg tta acc cca gat gta ggt 960
Ile Tyr Leu Val Tyr Lys Glu Arg Lys Ala Leu Thr Pro Asp Val Gly
305 310 315 320

5 ggt aat gcg aca act gat gac tta ata aat gaa att tat aat aag cta 1008
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35 40 45

Ala Arg Tyr Gly Glu Ala Leu Pro Lys Asp Ser Leu Lys Ile Ile Asp
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Lys Ala Asp Ile Ile Leu Lys Gly Pro Val Gly Glu Ser Ala Ala Asp
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Val Val Val Lys Leu Arg Gln Ile Tyr Asp Met Tyr Ala Asn Ile Arg
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Pro Ala Lys Ser Ile Pro Gly Ile Asp Thr Lys Tyr Gly Asn Val Asp
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Ile Leu Ile Val Arg Glu Asn Thr Glu Asp Leu Tyr Lys Gly Phe Glu
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His Ile Val Ser Asp Gly Val Ala Val Gly Met Lys Ile Ile Thr Arg
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Phe Ala Ser Glu Arg Ile Ala Lys Val Gly Leu Asn Phe Ala Leu Arg
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Arg Asn Pro Gln Met Phe Asp Val Ile Val Thr Glu Asn Val Tyr Gly
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His Gly Ala Ala Phe Asp Ile Ala Gly Lys Asn Ile Gly Asn Pro Thr

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Ala Phe Leu Leu Ser Val Ser Met Met Tyr Glu Arg Met Tyr Glu Leu

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Ser Asn Asp Asp Arg Tyr Ile Lys Ala Ser Arg Ala Leu Glu Asn Ala

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Ile Tyr Leu Val Tyr Lys Glu Arg Lys Ala Leu Thr Pro Asp Val Gly

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<213> *Saccharomyces cerevisiae*

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73